

Future Medical Shelter System (FMSS)



The Future Medical Shelter System (FMSS) is an advanced medical shelter designed to be the next-generation Chemically Protected Deployable Medical System (CP-DEPMEDS) to improve shelter quality for medical personnel. The FMSS is the latest effort in utilizing high-pressure airbeam technology. The main focus of this system is that it allows soldiers to rapidly deploy and quickly get a medical staff into a clean work environment.

Description:

As a forward-deployed combat support hospital, mobility is high priority. This type of treatment facility gives troops immediate medical care to stabilize them enough to transfer to a more permanent hospital if necessary. Reduced logistics and fast setup and takedown times are prominent advantages of the new system.

A 64-foot length of connected TEMPER tents takes 18 troops about 40 minutes to set up compared to four troops in 15-20 minutes for the same length of airbeam shelters. Instead of locating, connecting and inserting the metal frame parts into the TEMPER tents, troops handle a single item with four airbeams integrated into the rugged yet lighter fabric of each 32-foot section of the FMSS. Once spread out, the airbeams are inflated to 40 psi with a commercial air compressor that automatically shuts off when filled. The tent is then anchored into the ground with stakes for stability. The weight of the shelter is reduced from nearly 2, 700 lbs to 1, 200 lbs.

Manufactured by Vertigo, Inc. in Lake Elsinore, California, the braided high-strength polyester material of the airbeams has also cut the cost significantly and improved durability.

Higher pressure allows the FMSS to be designed with four instead of eight airbeams. The Chemical and Biological Protective Shelter (CBPS) now fielded uses low-pressure beams while the developmental Wide Span Airbeam Shelter for aircraft maintenance uses high pressure.

The FMSS was first demonstrated in October 2003. Two 32-foot × 20-foot modular airbeam tents were connected, representing pre- and post-operative care areas. After another planned demonstration the shelter will be sent to training sites for evaluation. Although this system has a medical focus this technology may expand for various uses, such as command posts.

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